

**Wildland-Urban Interface
Communities-At-Risk
Hazard Assessment, Mitigation and Action Plan**



Prepared by:
Bear Lake Regional Commission

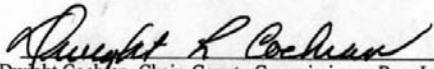
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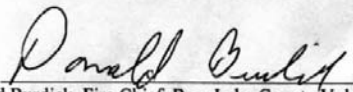
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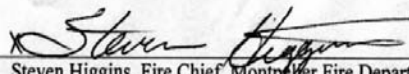
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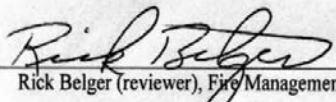

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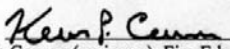

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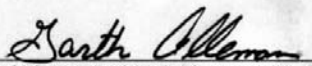

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Executive Summary

Bear Lake County is located in the extreme southeast corner of Idaho (Appendix A: Figure 1). This mountainous region maintains within its' borders Federal, State and Private lands that are susceptible to wildfire. For the last 40 years, Bear Lake County has been attracting an increasing number of recreational visitors. The recreational housing market has followed suit with significant development on lands at the interface between wildland regions administered by the Forest Service/BLM and Bear Lake County. As the number of homes and visitors increase so does the potential for fires and their inherent risks. The core fire season starts July 15 and terminates October 31. This window of time can vary upon winter snowpack, timing and release of snowpack and summer precipitation.

Occurrence of wildfires in the assessment area, both natural and human caused, is relatively low because of the long winter and cool moist summer that are normal for this area. However, increased weekend and recreational population will exacerbate current fire conditions leading to an increased risk of wildland fire. During a 21- year period, 1980-2001, 115 wildland fires occurred burning 6,818 acres within the county (Appendix A: Figure 2). In addition the county fire department suppressed an additional 30 fires per year. Of the 115 federally suppressed fires. 50% were lightning-caused and of the human-caused fires 25% can be related directly to camping activities.

The purpose of this plan is to identify and prioritize those regions within the county which pose the greatest risk of damage based on the priorities established. Those areas within the county that pose the greatest risk are identified on the ownership map in red (Appendix A: Figure 3). These areas are the highest risk based on the following criteria:

- Access
- Water
- Road grades and widths
- Population density
- Fuels

Identification of high risk regions in the county will provide Federal, State and Local leaders guidance on areas to focus and methods of mitigation to reduce fuels and enhance the safety and well being of landowners.

The proposal of the Bear Lake County Wildland Fire Mitigation Plan is to provide Bear Lake County residents, public and private organizations with assistance and recommendations to reduce risk and hazards presented by wildfires within Bear Lake County. Action items are directed to wildfire and mitigation and, as appropriate, mitigation of natural hazards.

Wildfire Plan Development and Organization

The Bear Lake County Wildland Fire Mitigation Plan will tier to the Idaho State Implementation Strategy for the National Fire Plan. Development and review of the plan was accomplished by the Bear Lake County Wildfire Group (BLCWG)

Participation in the BLCWG included representatives from:

- Bear Lake County Commissioners
- Bear Lake County Planning and Zoning
- Bear Lake County Volunteer Fire Department
- Idaho Bureau of Disaster Services
- Idaho Department of Lands
- Homeowners Associations
- County Residents and Landowners
- Bureau of Land Management, Upper Snake River District
- USDA Forest Service

Public participation was accomplished by distribution of questionnaires that address wildfire concerns and suggestions, website posting of the plan and space for community comments, participation by homeowners associations and information from community hazard identification and mitigation reports conducted within Bear Lake County by the Bear Lake Regional Commission for the Bureau of Land Management (BLM) in 2004. Draft copies of the plan were posted on the county internet site and at the courthouse for review.

Bear Lake County Wildland Fire Plan Objective

The objective of the Bear Lake County Wildfire Plan is to mitigate wildfire risk and hazard vulnerability and documenting areas of risk to wildfire hazards. Action identified to decrease wildfire risk and hazards within Bear Lake County are focused on public safety, emergency services, county infrastructure, natural resources, fish, wildlife and property protection.

1.0 Overview

The wildland urban interface is defined as "an area where development and wildland fuels meet at a well-defined boundary while another term, wildland/urban intermix, serves to differentiate a more specific type of area. The intermix is defined as "an area where development and wildland fuels meet with no clearly defined boundary." NFPA 299, *Standard for Protection of Life and Property from Wildfire*, 1991 edition. The leading land use agencies are responsible for reducing the accumulated fuel hazards on the lands they administer; cooperating on information and education programs; providing technical assistance; developing agreements, partnerships and relationships with municipalities and private property owners, local protection agencies, States, and other

stakeholders in the wildland-urban interface areas. These relationships primarily focus on prevention activities before a fire occurs, which render structures and communities safer and better able to survive a fire event.

The purpose of this assessment is to provide a “snapshot” of current fuel loads and other factors contributing to or prevention of wildfire. The scope of the project includes the Federal, State and Private lands within Bear Lake County, Idaho. A preliminary high risk assessment was performed by Northwind Environmental Inc. for the west side of Bear Lake County. The remainder of Bear Lake County was inventoried by the Bear Lake Regional Commission and the two are combined into this document which is a compilation of those inventories, assessments and mitigation actions for unincorporated areas of Bear Lake County, Idaho.

The most important purpose of the Wildland-Urban Interface Communities-at-Risk Program is to protect life first, and property and natural/cultural resources second, based on relative values to be protected commensurate with suppression costs (Forest Service, 2003).

The objectives of the project are to develop a fire management plan, which will:

1. Improve fire fighter and public safety through:
 - a. Education and training
 - b. Fire prevention
 - c. Fuel modification
 - d. Wildland-urban interface standards
 - e. Coordinated fire suppression operations
2. Enhance fire protection through:
 - a. Improved fire prevention and public education
 - b. Improved coordination and cooperation of fire suppression agencies
 - c. Development of long term strategies for fire services and community consistent with agency policies
3. Reduce risks to stakeholders (residents, visitors, businesses, and government agencies) through identification and implementation of fuel mitigation measures such as mechanical fuel treatments and prescribed fires on private and federal lands
4. Reduce the potential for and the consequences of catastrophic wildland fire events.

The Bureau of Land Management (BLM) proposes to reduce the hazard of wildland fire within the area of Bear Lake County. An initial high-risk assessment was performed by Northwind Environmental Inc. for the western side of the county. An additional assessment covering all other area not included in the first assessment was performed by the Bear Lake Regional Commission. The two assessments are combined in this document to provide a seamless assessment and mitigation plan for the Communities-At-Risk program administered by the Bureau of Land Management. The benefit of fuel reduction, public education, and training the community on fire protection and prevention is a reduction in frequency of wildfires spreading from municipality or private property

on to public lands (BLM administered lands) and for wildfires spreading from public land to municipal property.

Cooperative efforts on the parts of community officials, private landowners, and the BLM will be required to implement a successful Community-at-Risk Program that will reduce the frequency of wildfires. Therefore, this hazard assessment has been performed to evaluate and identify areas with unusually heavy concentrations of fuels, over-mature and decadent fuels, and other factors that are believed to potentially increase the severity of fire behavior. The assessment area was also analyzed to identify slope, roads, land ownership status, location of homes and subdivisions, available fire suppression infrastructure, and any additional environmental impacts that may be within the assessment area. During this assessment process a public meeting was convened to disseminate information to and obtain information from the general public. The information that was gathered during the assessment is contained within this hazard assessment and mitigation report.

2.0 Bear Lake County-Community Profile

Community Description.

The assessment area includes approximately 35 subdivisions near or abutting BLM and/or Forest Service managed land near the Wasatch-Cache and Caribou-Targhee National Forest. Communities in the county included in the assessment include Fish Haven, Bloomington, Bennington, Geneva, Raymond, Liberty, Ovid, Bern, Bailey Creek, Pegram and Dingle within Bear Lake County (Appendix A: Figure 1).

Population: The total population of Bear Lake County is approximately 6,360 as of 2002 census. In the assessment area are numerous small towns, communities, single home sites, and vacation homes. The largest towns in the assessment area have only 100 to 200 year round residents, but recreational use of the Bear Lake area increases dramatically during the summer months to many thousands of people. Twenty seven subdivisions were examined in this assessment. Population generated by recreational opportunities will continue to grow over the next years. Population projections by Idaho Power are expected to be nearly 8,600 by 2025 while other projections (Woods and Poole) predict much less (6,900) in the same time frame. Woods and Poole prediction although less aggressive is more consistent with school population trends. Much of the population generated by recreational opportunities extends from the neighboring Wasatch Front Metropolitan area of Salt Lake City, Ogden and Provo.

Ownership of land in the assessment area (approximate): Within the assessment area boundary, the land ownership is: US Forest Service (USFS) <1%, BLM 6%, State 2%, US Fish and Wildlife Service (USFWS) 7%, and private 84%. The Wasatch-Cache National Forest (USFS-administered land) trends north/south along the western boundary of the county while the Caribou-Targhee National Forest trends north/south on the eastern side of the county (Appendix A: Figure 4).

Historic and background information: Historically, Bear Lake Valley was considered to be prime hunting ground by the Shoshone, Ute, and Bannock Tribes. Mountain men appeared in the area in 1818 for trapping and hunting. In 1827 and 1828 rendezvous were held to enable trading of fur. In 1836 the Whitman-Spalding party came through the valley and their tales led to the establishment of this portion of the Oregon Trail. In 1863 Brigham Young sent the first settlers to the valley under Charles C. Rich. They established the community of Paris, which was to become the County seat in 1875 when Bear Lake County was established. Capt. Bonneville came through the Bear River Valley and was followed by other notable explorers on the Oregon Trail. Of those notables were Nathaniel Wythe, Jason Lee and the Whitmans and Spaldings, all on their way to the fertile Willamette Valley. Another notable character to grace the region was Thomas L. “Peg-Leg” Smith, who opened a trading post in what is now Dingle, Idaho. Immigrants found the area to their liking settled in local communities such as Geneva, Raymond and Pegrarn. Timber, minerals and farming supported the valley population until recreation became important with the arrival of the railway and suitable vehicles and roadways.

The Valley is generally southeast of Pocatello 100 miles via US 30 and 89 and north east of Logan 60 miles via US 89. The assessment area includes two valleys, the Bear River Valley and the Thomas Fork Valley which trend north/south and are separated by the Pruess Mountain Range. The major slopes south of Ovid and Liberty face generally toward the east and are divided by various east flowing Drainages (Ovid Creek, Sleight Canyon, Paris Canyon, Bloomington Creek, Dry Creek, Dry Canyon, St. Charles Creek, Fish Haven Canyon) that empty into either Bear Lake or the Bear River downstream of Bear Lake. Ephemeral streams have carved valleys in the Thomas Fork Valley that trend predominantly east/west from the Pruess Mountain range. The west slope of the range possesses very steep canyon walls with little vegetation while the east slope of the Pruess Mountains, have less steep drainages. Recent geologic activity on the east side of Bear Lake has produced extremely steep scarp faces with accompanying steep east/west drainages. The streams produced from these drainages provide much of the surface water for various irrigation projects and power generation plants locally and down stream along the Bear River. North of State Highway 36 Emigration Creek, North Creek and Poison Hollow flow southward into Ovid Creek while Sheep Hollow, Bear Hollow and Red Pine Hollow flow directly into Bear River creating extensive areas of dry south facing slopes. Other streams in the county include: Indian Creek, Thomas Fork Creek and Bailey Creek, which flow consistently. Thomas Fork Creek drains the Thomas Fork Valley and flows south to converge with the Bear River. Indian Creek flows west to Bear Lake and Bailey Creek flows north to converge with the Bear River. Indian Creek has downcut and exposed significant, dry, south facing slopes. There are many other ephemeral streams, which only fill during the spring to accommodate snow melting off the higher elevations. Elevations in the Bear Lake assessment area range from 5,923 feet to 7,260 feet above mean sea level (amsl). Bear Lake County is bordered by Lincoln County, Wyoming to the east and Rich County, Utah to the south and Caribou County, Idaho to the north. Drainages trending east/west are also very steep in this region and have significant southern exposure.

Until the last decade, farming and grazing controlled the vegetation on the lower slopes with grazing, logging, and water or mineral developments determining much of the vegetation at higher elevations. However, during the last decade recreation and associated housing has expanded causing an increase in fuel loadings as well as an increase in the grass, sagebrush, mountain shrub and conifer stands. With the increasing demand for primary and secondary housing, subdivisions have been developed adding to the ever-increasing number of summer visitors to this area. This has in turn led to an increased risk of human-caused fires when the native vegetation is most susceptible to ignition.

With an ever increasing seasonal demand for domestic water combined with the recent drought conditions over the last few years, water levels in the reservoirs and storage tanks have been dropping creating a high potential for water shortages. New water sources will need to be developed in the near future for some of the subdivisions or growth will be limited.

Date of Assessments: August 28, 2002 to September 17, 2002 (High Risk Areas)
October 14, 2003 through April 15, 2004 (remainder of county)

2.1 Climate summary

The Montpelier Weather Stations' 30-year (1971-2000) averages indicate temperature highs of less than 90°F in late July and August with lows of 50°F for the same time period. Winter 30-year highs were between 20 and 30°F in December and January with lows just above 5°F for the same months. Distribution of precipitation within the county is variable due to the changes in altitude. Valley locations receive approximately 10 inches of water per year while the upper elevations receive 25 inches or more water per year. Precipitation is heaviest during the winter months and comes most years as snow providing sufficient snow to encourage snowmobile operators and cross country skiers to travel the back county. Long-term climate data for the assessment area is shown in Table 1.

Table 1. Long term monthly climate data summary for the Bear Lake area. The period of record is 1/1/1931 to 6/30/1991 (Table 1a). Table 1b shows the data from 1971 to 2002. Climate center located at Montpelier, Idaho.

Table 1a	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	29.5	33.6	40.3	52.9	64.7	74.3	85	83.4	73.1	60.6	42.5	32.4	56
Average Min. Temperature (F)	6.3	8.6	16.1	26.7	34.7	41.3	47.2	45	36.2	27.8	18.4	10.5	26.6
Average Total Precipitation (in.)	1.2	1.15	1.28	1.32	1.42	1.48	0.76	0.91	1.15	1.14	1.09	1.19	14.09
Average Total SnowFall (in.)	13.4	11.8	9.4	3.9	0.8	0.1	0	0	0.2	1.6	7.1	13.3	61.6
Average Snow Depth (in.)	10	12	6	0	0	0	0	0	0	0	1	5	3

Table 1b	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	29.4	34.5	42.1	53	63	74.8	83.8	82.5	72.3	59.4	40.8	31	55.7
Average Min. Temperature (F)	6	8.7	17.8	26.4	34.1	41.3	46.8	44.8	36	27.1	17.4	8.3	26.3
Average Total Precipitation (in.)	1.27	1.28	1.35	1.25	1.73	1.08	0.81	1.12	1.37	1.28	1.43	1.32	15.29

2.2 Geology

The geology of the area consists of alluvial deposits and clay beds with Limestone and Dolomite as the primary bedrock material. Major structural elements are Paleozoic and Mesozoic rock formations of the Bear River Range that have been thrust faulted and strongly folded. Similar bedrock units in the Bear Lake Plateau and Pruess Range have also been thrust faulted, tightly folded and overturned. The Bear Lake Valley appears to be a typical basin and range but rather, is a graben bounded on both sides by active faults. This activity is apparent from fault scarp faces on the east side of Bear Lake and other areas. Water bearing units in the area include the Brigham Formation. Many formations in Bear Lake County do not contain prolific water bearing units.

2.3 Soils

Most soils in the area are lacking in nutrients and organic matter. Mostly mixtures of clay and silt they have little cohesion and are prone to slippage and erosion. Post fire conditions promote slope failure and gully erosion within areas of this soil type. Exceptions to the rule are those soils on or near the Bear Lake National Wildlife Refuge which contain more nutrients and organic matter.

2.4 Wildlife

Wildlife within the assessment are as follows:

Mule deer, rocky mountain elk, moose, sage grouse, ruffed grouse, blue grouse, snowshoe hare, porcupine, bobcat, fox, coyote, Townsend bat, gopher, Bonneville cutthroat trout, rainbow trout, brook trout, amphibians, migratory song birds, raven, crow, magpie, skunk, mountain lion, black bear, rock chuck, badger, woodpeckers, beaver, pine squirrel, ducks, geese, raccoon. The Bear Lake National Wildlife Refuge has reported two species of interest, the bald eagle and the trumpeter swan. The bald eagle has been listed as a threatened and/or endangered species but preservation has solicited removal from the list. Trumpeter swans have generated interest through potential listing but have not yet received that designation. Other species of interest include the Gray wolf and Utah valvata snail. Other species of interest to the State of Idaho within the assessment area include:

Mammals

Coast mole (*Scapanus orarius*), Fringed myotis (*Myotis thysanodes*), Western pipistrelle (*Pipistrellus hesperus*), Spotted bat (*Euderma maculatum*), Townsend's big-eared bat (*Corynorhinus townsendii*), Pygmy rabbit (*Brachylagus idahoensis*), Cliff chipmunk (*Tamias dorsalis*), Uinta chipmunk (*Tamias umbinus*), Rock Squirrel (*Spermophilus variegatus*), Little pocket mouse (*Perognathus longimembris*), Dark kangaroo mouse (*Microdipodops megacephalus*), Northern bog lemming (*Synaptomys borealis*), Kit Fox (*Vulpes macrotis*), Fisher (*Martes pennanti*), Wolverine (*Gulo gulo*), California bighorn sheep (*Ovis canadensis californiana*)

Birds

Common loon (*Gavia immer*), American white pelican (*Pelecanus erythrorhynchos*), great egret (*Ardea alba*), trumpeter swan (*Cygnus buccinator*), harlequin duck (*Histrionicus histrionicus*), northern goshawk (*Accipiter gentilis*), Columbian sharp-tailed grouse (*Tympanuchus phasianellus columbianus*), greater sage grouse (*Centrocercus urophasianus*), mountain quail (*Oreortyx pictus*), black tern (*Chlidonias niger*), Upland sandpiper (*Bartramia longicauda*), flammulated owl (*Otus flammeolus*), northern pygmy-owl (*Glaucidium gnoma*), great gray owl (*Strix nebulosa*), boreal owl (*Aegolius funereus*), white-headed woodpecker (*Picoides albolarvatus*), three-toed woodpecker (*Picoides tridactylus*), black-backed woodpecker (*Picoides arcticus*), pygmy nuthatch (*Sitta pygmaea*), loggerhead shrike (*Lanius ludovicianus*).

Fish

Bear Lake sculpin (*Cottus extensus*), shoshone sculpin (*Cottus greeniei*), wood river sculpin (*Cottus leiopomus*), white sturgeon (*Snake and Salmon Rivers*) (*Acipenser transmontanus*), yellowstone cutthroat trout (*Oncorhynchus clarki bouvieri*), westslope cutthroat trout (*Oncorhynchus clarki lewisi*), Snake River finespotted cutthroat trout (*Oncorhynchus clarki spp.*), Bear Lake cutthroat trout (*Oncorhynchus clarki spp.*), interior redband trout (*Oncorhynchus mykiss gairdneri*), Bear Lake whitefish (*Prosopium abyssicola*), bonnevillie cisco (*Prosopium gemmifer*), bonnevillie whitefish (*Prosopium spilonotus*), leatherside chub (*Gila copei*), sand roller (*Percopsis transmontana*).

Amphibians and Reptiles

Coeur d'Alene salamander (*Plethodon idahoensis*), western toad (*Bufo boreas*), columbia spotted frog-northern population (*Rana pretiosa*), northern leopard frog (*Rana pipiens*), mojave black-collared lizard (*Crotaphytus bicinctores*), ringneck snake (*Diadophis punctatus*), Longnose snake (*Rhinocheilus lecontei*), ground snake (*Sonora semiannulata*).

Invertebrates

Idaho dunes tiger beetle (*Cicindela arenicola*), Columbia River tiger beetle (*Cicindela columbica*), bruneau dunes tiger beetle (*Cicindela waynei*), blind cave leiodid beetle (*Glacivicolia bathyscioides*), Idaho point-headed grasshopper (*Acrolophus pulchellus*), california floater (*Anodonta californiensis*), marbled disc (*Discus marmorensis*), mission creek oregonian (*Cryptomastix magnidentata*), costate mountainsnail (*Oreohelix idahoensis idahoensis*), boulder pile mountainsnail (*Oreohelix jugalis*), striate mountainsnail (*Oreohelix strigosa goniogyra*), whorled mountainsnail (*Oreohelix vortex*), lava rock mountainsnail (*Oreohelix waltoni*), columbia pebblesnail (*Fluminicola fuscus*), shortface lantana (*Fisherola nuttalli*).

Plants

Slickspot peppergrass (*Lepidium papilliferum*), packard's milkvetch (*Astragalus cusickii* var. *packardiae*), indian valley sedge (*Carex aboriginum*), centennial rabbitbrush (*Chrysothamnus parryi* ssp. *montanus*), membrane-leaved monkeyflower (*Mimulus hymenophyllus*), spacious monkeyflower (*Minulus ampliatus*), obscure phacelia (*Phacelia inconspicua*), clearwater phlox (*Phlox idahonis*), salmon twin bladderpod (*Physaria didymocarpa* var. *lyrata*), bienertia princeplume (*Stanleya confertiflora*), meadow pussytoes (*Antennaria arcuata*), jessica's aster (*Aster jessicae*), goose creek milkvetch (*Astragalus anserinus*), meadow milkvetch (*Astragalus diversifolius*), mulford's milkvetch (*Astragalus mulfordiae*), white clouds milkvetch (*Astragalus vexilliflexus* var. *nubilus*), peculiar moonwort (*Botrychium paradoxum*), Idaho sedge (*Carex parryana* ssp. *Idaho*), flexible alpine collomia (*Collomia debilis* var. *camporum*), Idaho hawksbeard (*Crepis bakeri* ssp. *idahoensis*), greeley's wavewing (*Cymopterus acaulis* var. *greeleyorum*), Idaho douglasia (*Douglasia idahoensis*), stanley

whitlow-grass (*Draba trichocarpa*), welsh=s buckwheat (*Eriogonum capistratum* var. *welshii*), guardian buckwheat (*Eriogonum meledonum*), packard=s buckwheat (*Eriogonum shockleyi* var. *packardiae*), palouse goldenweed (*Haplopappus liatrisformis*), bruneau river prickly phylox (*Leptodactylon glabrum*), hazel=s prickly phlox (*Leptodactylon pungens* ssp. *Hazeliae*), packard=s desert-parsley (*Lomatium packardiae*), smooth stickleaf (*Mentzelia mollis*), rydberg=s musineon (*Musineon lineare*), cache penstemon (*Penstemon compactus*), Idaho penstemon (*Penstemon idahoensis*), alkali primrose (*Primula alcalina*), bartonberry (*Rubus bartonianus*), tobias= saxifrage (*Saxifraga bryophora* var. *tobiasiae*).

2.5 Vegetation

Within the assessment area, Bear Lake County has a wide range of vegetation types depending upon topography and aspect. Lowland valley areas are typically wet and have the greatest diversity of vegetation. The Bear Lake National Wildlife Refuge is located in the center of the Bear Lake Valley. This refuge is managed to maintain and enhance diversity among plants and animals. Within the wildlife refuge there are over 150 different species of plants. Outside the wildlife refuge plant communities on the upland and hillsides are typical of a high altitude prairie and consist of brush and grass communities. Upper elevations and slopes facing north and west are predominantly covered with large woody species. Species commonly found within the assessment include but are not limited to:

Sagebrush, bitterbrush, grasses, tall forbs, snowberry, rabbitbrush, snowbrush, huckleberry, buffalo berry, twin berry, willow, mountain mahogany, choke cherry, hawthorn, service berry, juniper, bigtooth maple and cottonwood are typically found in the valley and hillside locations. Trees such as aspen, Douglas-fir, lodgepole pine, Engelmann spruce, subalpine fir, limber pine,

2.6 Emergency Services

Law enforcement is provided through Bear Lake County and Montpelier, Paris, and Georgetown Cities. Ambulance services are located in Montpelier City. Fire protection is provided by a volunteer fire department with volunteers located throughout the county as well as strategically placed equipment to enhance quick response. Agreements have been made with local fire departments from Garden City, Utah and Soda Springs, Idaho to reduce response time in outlying areas of the county that are closer to other jurisdictions as well as for backup in severe situations. Other agencies such as the U.S. Forest Service, Bureau of Land Management and State Department of Lands also assist fire fighting efforts within the county.

2.7 Transportation

Bear Lake County encompasses an area of roughly 628,000 acres with few roads. Timing location, and expansion of transportation networks are important issues affecting future access.

There are only two major routes in the County, U.S. Highway 89 and 30. Both are used extensively by tractor trailers for transport of goods across state lines. State Highway 36 connects Preston to U.S. 89 by way of Emmigration Canyon. Both US 89 and 30 are also part of the scenic byway system and transport tourists and travelers year round to destinations such as Jackson Hole, Wyoming and Yellowstone National Park. Both of these highways are maintained by the Idaho Department of Transportation and are 2 lane roads with intermittent additional passing lanes.

Bear Lake County Road and Bridge Department is responsible for maintenance and construction of 70 miles of paved road and 500 miles of gravel road. Most roads in the county are a crushed material base with seasonal application of Magnesium Chloride as dust abatement. Paved roads in the county are single lane with minimal shoulder at some locations.

Located ten miles outside Paris, Idaho the Bear Lake County Airport was originally constructed for the military during World War II. Presently, it has two runways in use. The primary runway is asphalt and 5,730 feet in length and 75 feet wide and essentially level. This runway was resurfaced during 2003. The second runway is 4,590 feet long and 150 feet in width and unimproved since 1942. Significant weed growth and cracking are prevalent along the entire length of this runway. Both runways are provided with a paved turnaround area. A lighted windsock is located on the north end of the primary runway. Presently, precision and non-precision instrument approach are not available for either runway. The primary runway has a single wheel loading (SWL) of 12,500 pounds while the secondary runway has strength rating of 50,000 SWL, 64,000 pounds Dual Wheel Loading (DWL), and 102,000 pounds Dual Tandem Wheel Loading (DTWL).

2.71 USDA-Forest Service Roads

The USDA-Forest Service, Wasatch-Cache and Caribou-Targhee National Forest has built and maintained numerous two-lane gravel roads throughout the county for recreation, logging and mining. Some of these have been closed and many are currently gated with access allowed for seasonal use or during a wildfire. The Caribou-Targhee National Forest has recommendations and requirements for these roads, and a travel plan with requirements for the trail system and off road or trail travel is being developed.

2.8 Weed Control

Undesirable vegetation plays a primary role in wildland fires and must be addressed in fire prevention plans. Labeled as weeds, these plants are non-native, invasive and

difficult to control. Due to their deleterious nature, some have been given the legal designation of “Noxious” by the state of Idaho and under the law require management. Many others are problematic and especially troublesome to fire managers.

Fire and fuels management is complicated. In short, undesirable vegetation (weeds) can provide the fuel to an unwanted fire, increase its speed and intensity and increase costs of wildfire prevention and management. Of primary concern are the annual vegetation types which grow, mature and become an abundant dry fuel source in one short growing season. As these types establish, increases in the fire frequency go up drastically.

Cheat grass is the prime example. Downey brome (cheatgrass), an annual plant has established itself in much of the western states and resulted in more fires and higher fire management costs. Cheatgrass is an alien species which can displace the native perennial grasses which burn with less frequency. It is wide spread over the western states and control measures are extremely costly or ineffective. Other similar invading annual grasses have also become abundant in parts of western rangelands.

Current Conditions and Risk Assessment

In brief, Bear Lake County is at risk of being invaded by unwanted weeds and annual grasses. At present cheatgrass can be found throughout the county. In some areas it is quite abundant. Although cheatgrass is abundant it may not yet be the dominating vegetation type in most plant communities in this area. Its effects on fire frequency have not been as pronounced. Other invasive species need to be watched as well. Increased potential of undesirable vegetation can be associated with the following types of activities.

- Major construction projects such as pipelines and roads.
- Housing projects in undeveloped areas.
- Crops or seeding projects that fail.
- Improper grazing practices, especially on drought stressed ranges.
- Farming which does not incorporate aggressive weed control practices.
- Noxious weed control practices which leave a site void of desirable vegetation.

Any activity, that creates an area of soil void of vegetation, will likely result in weeds and a change in traditional fire regime.

Summary

Fire on western lands is a natural phenomenon. However, due to the recent encroachment of weeds on these lands, fire frequencies have been elevated to an unprecedented level. This is a concern for the safety and welfare of society and welfare of the natural environment. As landowners and managers maintain native plant communities and restore disturbed ones to a desirable state, fire frequencies will be kept at more manageable level.

3.0 FIRE HAZARD ASSESSMENT

The hazard of wildland fires within the assessment area was determined through evaluation of existing fuels, public meetings and interviews with public officials and fire suppression crews. The assessment of the existing conditions and public information was collected on two different occasions. The west side of Bear Lake County, was inventoried during fall of 2002 while the east side was inventoried during the fall and winter of 2003/2004.

3.1 Field Survey

During the field survey, all roads within communities and subdivisions were driven and inventoried visually. All of the subdivisions on the east side of Bear Lake and some on the west side of Bear Lake were gated. These subdivisions were inventoried from the nearest road. Photographs were taken of the various fuel conditions existing within the assessment area (Appendix B). Aside from isolated houses and cabins, there are thirty-five approved subdivisions within the assessment area. Assessments were completed for each of these specific thirty-five points and included (Appendix C):

- Fire hazard assessment forms (Form 1) for each of the approved subdivision and communities visited. This data provides the general land features (slope, aspect, elevation) and fuel types and sources within each assessment area. Each element was evaluated at each subdivision or community to determine if the potential fire hazard was low (Class A), medium (Class B), or high (Class C).
- Structural hazard assessment forms (Form 2) for each area visited. Elements such as structure density, proximity of fuels, building materials, survivable space, existing roads, response times and access were appraised during field visits. As in Form 1, each element was evaluated at each assessment point to determine if the potential fire hazard was low (class A), medium (class B), or high (Class C). The symbol "N/A" was entered for situations that did not apply to these sections. Structures were defined as homes and other buildings (i.e. barns or outbuildings) with economic value to the landowner, or historic buildings.

3.2 Public Meeting

A public meeting was convened in Montpelier at Bear Lake County Search and Rescue on February 18, 2003 at 7:30 pm. The community was invited to attend through a newspaper announcement in The News-Examiner (Montpelier) on February 10 and through public announcements on the local KVSJ Radio. Specific mailings were sent out on February 11 to the County Commissioners, Mayor, Chamber of Commerce, Sheriff, Chief of Police, Montpelier Fire Department, Bear Lake County Volunteer Fire Department, Bear Lake National Wildlife Refuge, U.S. Forest Service, USDA-NRCS, Idaho Fish and Game, and other individuals in the assessment area. Additional meetings were held during the summer of 2004. The first meeting was convened on July 9. Invitations were sent out to the County Commissioners, Heads of the local fire departments, homeowners association presidents, Federal and State Fire Managers. Copies of the plan were available for public review and comment at the following locations:

Montpelier City Hall
Bear Lake County Courthouse
Bear Lake County Library
Paris City Library

A review was placed on the county website with guidance on obtaining or reviewing a copy of the plan. A public service announcement was also broadcast courtesy of the local radio station. Copies of announcements can be found in appendix D.

3.3 Interviews with Public Officials

To obtain data for the community profile (Form 3) and to complete the potential mitigation possibilities for hazards identified, North Wind Inc. and Bear Lake Regional Commission personnel conducted interviews with the Bear Lake County Volunteer Fire Department Fire Chief, the Montpelier Fire Chief, and the Idaho Department of Disaster Services. Other elected officials and the general public provided additional comments at the public meeting and some written comments were received after the public meeting.

4.0 GENERAL SUMMARY: FIRE HAZARD, STRUCTURAL ASSESSMENT, AND COMMUNITY PROFILE

4.1 Form 1: Fire Hazard Assessment

Within the assessment area, the dominant fuel in and adjacent to communities and subdivisions is a mixture of grass, sagebrush, aspen, cottonwood, and conifer stands. With the exception of the subdivisions around Bear Lake and Bailey Creek, most of the assessment area is still grazed and harvested. Those areas relegated to recreational housing contain tall, dense grasses with medium to heavy letter, and an overstory of dense sagebrush. Bailey Creek was particularly heavily vegetated due to the predominant north aspect. Conifer stands were limited to the areas facing north or the lee side of the mountain or wet areas and mountainous regions above 8000 feet. Regardless of the location there is a high probability of fire, which, with proper weather conditions, could spread very rapidly across the landscape in most areas.

Below is a summary of each of the elements assessed. The complete results are shown in Table 2.

- Slope: Slopes within the assessment area had a range of 2% to over 30% in some of the steeper canyons and along the scarp face of the east side of Bear Lake and the west slope of the Pruess Mountain Range (Appendix A: Figure 5).
- Aspect: Most of the communities in the assessment area are built in flat valley locations. Exceptions to this rule are the subdivisions around Bear Lake and Bailey Creek which faces north (north aspect).
- Elevation: Elevations within the assessed communities and subdivisions vary by small amounts. Bailey Creek was the high point at 6,222 ft (amsl) and the subdivisions on the East side of Bear Lake were the low elevations at 5,990 ft (amsl).
- Vegetation Type: Within the assessment area the vegetation is consistent with that found at a location of high elevation, low precipitation and short warm

- growing season. Most of the assessment area is vegetated with prairie and meadow grasses and sagebrush. Bailey Creek which is the only north facing development is heavily vegetated with aspen stands intermingled with conifer stands. Mountain brush such as hawthorn compose medium height vegetation while grasses and sagebrush are predominant at the ground level.
- Fuel Type: Within the assessment area the vegetation is predominantly agricultural (grain and alfalfa) and range grasses mixed with sagebrush. In most places, grasses will carry fire to the sagebrush. The sagebrush will be the carrier of fire to trees potentially resulting in crown fire.
 - Fuel Density: 93% of the developments within the assessment area had broken fuel beds while the remaining sites had continuous fuel bed, which would provide fuel ladders and a potential for crown fires.
 - Fire Occurrence: A history of fire occurrence within the assessment area is shown in Appendix A: Figure 2.

4.2 Form 2: Structural Fire hazard Assessment

A general evaluation of the Bear Lake Assessment area found that there are two distinct regions of the county. The southern portion around the lake and the rest of the county. The southern portion of the county is mostly second-home and recreational housing with high, urban density homesites. Homesites around Bear Lake also had the least survivable space with vegetation growing up to the side of the buildings. The northern portion of the county is agricultural and contains homesites at significantly lower densities spread out over more ground. Those homes not in communities presented the highest risk because of poor access, least survivable space and vegetation growing up to the buildings.

During the structural fire hazard assessment 35 different subdivisions and communities were visited, some of which are not presently under development. Within the organized subdivisions there are over 2,000 undeveloped lots.

Condition of buildings in the assessment area range from old and dilapidated to new. The developments around Bear Lake contain many of the newest buildings with most less than 10 years old. The agricultural communities have mostly older buildings with very old outbuildings. Often the residences are brick or stone construction while outbuildings are older and made of wood. Most of the homes regardless of age consist of composition shingle construction or metal roof with few consisting of wood shingles. Several of the subdivisions on the east side of Bear Lake are approaching build out and resemble high density housing developments. Some subdivisions contain fire hydrants installed many years ago and do not possess the capacity for fighting fire in high density conditions. Utilities in most areas are buried, but most homes are heated with propane. Propane is stored on property in storage tank, which could rupture under conducive conditions.

The type of roads within the subdivisions varies from two-lane black top to single track native soil without turnouts or big enough cul-de-sacs at the road end for fire trucks to maneuver in. Road maintenance also varies by subdivision, but in all subdivisions it does not appear adequate for the traffic using the gravel or dirt surfaced roads with steeper

grades. The access into the individual homes is generally a very narrow dirt or rock driveway with insufficient space to turn fire equipment around. Many of the older narrow roads are already being encroached by native vegetation in the near future access with normal fire equipment during an evacuation will become more difficult.

The results of the structure survey are shown in Appendix C. The main points are summarized below.

- Structure Density: 80% of the homesites inventoried had densities less than one unit per acre. 100% of the subdivisions inventoried around Bear Lake had homesites on less than 1 acre and resembled high density urban housing. There are some 20 acre parcels separating the Bear Lake West subdivisions but few of these have been constructed. Undeveloped areas around Bear Lake will likely see continued pressure to subdivide and grow with densities around 1 unit per acre.
- Proximity to Fuels: All of the subdivisions are rated as having flammable fuels within 40 feet of the structures (Class C). Most homesites have fuels such as grass and sagebrush growing under siding or roofing. There were only a few lots within the subdivisions that had defensible space designed into the landscaping around the dwellings and only a few of those maintained a green space. The homes presently under construction have minimal clearing in the shrub or tree stand and this will decrease further unless the owner undertakes a program to maintain a defensible space. Homesites in the outlying areas of the county commonly have defensible space on three sides with the south side lined with trees for protection from wind. Most homesites in the agricultural regions have sufficiently watered lawn surrounding the home.
- Predominant Building Material: Most of the homesites that are related to the mountain or recreation setting are constructed of wood or other flammable exterior while homesites in the outlying and community areas are composed of non-flammable materials such as brick. Roofing material is predominantly metal and organic composite with only a few utilizing wood shingle construction.
- Survivable Space: All of the subdivisions inventoried had less than 10% survivable space while many of the homesites in the rural communities had significant survivable space greater than 40%.
- Roads: Several subdivisions and all communities had sections of maintained two-lane roads. Homesites and subdivisions on the east side of Bear Lake had steep road grades that leveled off as the road proceeded into the subdivision. All of the communities had two lane maintained roads while 60% of the subdivisions had narrow, single lane roads that are not maintained.
- Response Time: 15-20 minutes.

Access: All of the communities in the assessment had more than one entrance/exit that could be used in an emergency. One of the subdivisions had more than one entrance/exit that could be used in an emergency and large enough to accommodate fire equipment. Most (80%) of the subdivisions had narrow, single lane, and/or steep road grades with no turnaround space for fire equipment (Class C). Four wheel drive roads to some of the

more remote scattered parcels would require smaller brush engines and stream crossings in some areas would limit structural fire fighting equipment and require extensive hose layers.

4.3 USDA Forest Service Assessment

Within Bear Lake County are USDA Forest Service administered lands. These lands have fuels treatments scheduled to be performed or have been performed in the past. Visual depiction of the size and location of these controlled treatments are found in Appendix A: Figure 6. Table 2 provides information relating to the fuels treatments that have occurred in the county in the past and those yet to perform. Size of the treatment and what will be treated are also included. The Forest Service has also outlined the areas of emphasis for fuels treatment and areas of concern within the county (Appendix A: Figure 7).

Table 2. Past and Present fuels treatments as prescribed by the USDA Forest Service

Past

Name/Location	Year	Acres	Objectives
Dry Basin	1999	350	Veg.-Wildlife
Whiskey Flat	1999	745	Veg.-Wildlife
South Ant	1999	571	Veg.-Wildlife
White Pine	1999	32	Veg.-Wildlife
Crib Spring	2001	175	Veg.-Wildlife

Planned

Name/Location	Year	Acres	Objectives
Hollows	2004	2235	Fuels/Veg.
Fox Flat	2004	75	Veg.-Wildlife

5.0 On-Going Wildfire Hazard Mitigation

Within the assessment area there are no other known wildfire hazard mitigation plans being developed or implemented. A high risk assessment and mitigation plan for “Communities at Risk” program implemented by the Bureau of Land Management has been completed for the western portion of Bear Lake County. This document constitutes the overall assessment and mitigation plan for Bear Lake County. The Bureau of Land Management will be implementing fuels reduction techniques between St. Charles and Bloomington during the summer of 2004. This effort should also be applied to areas south of St. Charles and Bloomington as several years of drought and no treatment has allowed significant woody debris to accumulate. Sagebrush stands are also becoming very dense and burdensome. Treatment would set back succession and reduce the potential for fire and associated intensity.

6.0 Values At Risk

Within the assessment area numerous wildlife habitats exist. The Bear Lake National Wildlife Refuge is a 18,000 acre refuge home to many species of waterfowl and upland game birds. In addition, many small mammals, moose, deer. Reptiles inhabit the area. The area covered by this assessment is home to moose, deer, elk, bobcat, mountain lion and small mammals. Many birds are also found living the various conditions within the assessment area. Moose, Elk, Deer, small mammals and various birds utilize the landscape as cover and forage. The Pruess, Sublette and Boundary Mountain Ranges on the West side of Bear Lake County provide significant winter range for Mule Deer and Rocky Mountain Elk. Streams in the area provide habitat for cold water salmonids including the Bonneville Cutthroat Trout, which is a species of concern to Idaho Fish and Game. Many people visit or make the area their residence because of the abundant wildlife opportunities that are common to the assessment area. Wildlife in the area are cherished for their scenic and sporting values. Significant numbers of birdwatchers and tourists are drawn to the Bear Lake National Wildlife Refuge to observe fowl and other wildlife.

Home values in the assessment area are highly variable due to the wide range of uses. Recreational homesites around Bear Lake and Bailey Creek range from \$50,000 to \$900,000 while many of the homes in the communities have a median value of \$65,000. These values only represent the value of the home and immediate property but does not include acreage used for agriculture including implements, storage buildings etc... There are also a number of small cabins and other structures used by early settlers that have historic value but are not usable in their present condition. One home within the assessment area is listed on the National Historic Home Registry and is currently unoccupied. Home construction steadily increased from 1970 until the year 2001 where a

decrease was encountered. Home construction is gaining and concentrated around Bear Lake and Bennington. The majority of new home construction in the county is focused around those regions associated with recreation. The county does not yet require contractors to build using any type of building code.

Within the subdivisions, the structures, primarily houses, range in value from \$90,000 to over \$250,000 while the more isolated parcels and small subdivisions have values that range from \$40,000 to just over \$90,000. Scattered over the assessment area are a number of small cabins or shelters used by early settlers that potentially have historic value, but are not usable in their present condition. Home construction has been steadily increasing to accommodate the summer residents. The normal population for Bear Lake County is around 6411 based on last census.

The surface water present is being used for normal domestic uses as well as for irrigation and generation of power. Montpelier Reservoir is located east of Montpelier and was constructed to supplement irrigation demands during the summer and early fall and at maximum capacity stores 4,050 acre-feet of water. In other areas surface ponds have been constructed to provide late season water for grazing animals. In several drainages weirs have been constructed in addition to the dams to allow for seasonal diversion of water for irrigation in the main valley and for stock water on the upper slopes.

Power lines cross the assessment area in several places providing power to the local citizens, farms, small industrial plants and the storage control structure operated by Pacificorp on the south end of Bear Lake. Electricity is transported by power line supported by metal structures that cross U.S. Highway 36 with wooden poles used supplying power to the smaller outlying areas.

A natural gas pipeline crosses the assessment area in a northwest to southeast line carrying natural gas from Wyoming to other regions of Idaho. The compressor station is located outside Georgetown. Some parts of the county are serviced by natural gas but most locations are dependent upon propane, which is stored in above ground cylinders. These cylinders are serviced by one of a number of propane distributors in the area.

U.S. Highway 89 is considered to be one of the states' scenic byways as is State Highway 36. Highway 89 services travelers passing through while State Highway 36 is used predominantly for transport by tractor trailers. Both thoroughfares offer fantastic views of Bear Lake, Bear River, Bear Lake National Wildlife Refuge, irrigated farmlands and historic small towns and buildings. Recreational use is steadily increasing and changing from a summer activity confined to Bear Lake to year round recreation as snowmobiling increases in popularity.

All of the small towns within the assessment area have a well groomed cemetery dating back to early settlement days. These are regularly watered and mowed so should be impacted by wildland fires except for firebrands falling in the area on maintenance buildings and areas of heavy brush adjacent to wooden fence posts.

7.0 Fire Risk and Behavior

BehavePlus is a Windows based application used to predict wildfire behavior for fire management purposes. Wildfire managers who are familiar with fuels, weather, topography, wildfire situations and the associated terminology are the primary users of this application. BehavePlus uses a minimum amount of site-specific input data to predict fire behavior for a single point in time and space.

Several model runs have been conducted using BehavePlus Version 1.1.0. These simulations were run with various site specific input variables for the Bear Lake – West assessment area. Variables included various combinations of 1-h moisture, 10-h moisture, 100-h moisture, Live fuel moisture, Dead fuel moisture, Midflame wind speeds, Wind direction, Slope steepness, and Aspect. The various fuel model runs include:

Fuel Model 1
Fuel Model 2
Fuel Model 3
Fuel Model 5
Fuel Model 6
Fuel Model 8
Fuel Model 9
Fuel Model 10

The output from these model runs is available in the project file at the BLM Idaho Falls Field Office.

8.0 Desired Condition

Based on the information gathered from during the interviews of community officials, discussions during the public meeting, review of the survey forms and mitigation proposed from the Bear Lake-West Assessment, it was determined that the communities within the Bear Lake County assessment area would like to see the following conditions occur:

- Improve County Fire Departments capability to suppress both wildland and structural fires by improving water supplies within subdivisions and improving the department's ability to move water from existing water sources. Add a fire engine and tender to the County's fire fighting equipment.
- Develop an active prevention program within the county that will inform the summer residents of the fire hazards and risks that exist in and adjacent to subdivisions.
- Develop an active fire prevention program within the county that will inform full time residents of the fire hazards and risks that exist in neighborhoods and outlying homes.
- Provide assistance to the Local Emergency Operations Group to facilitate development of a county-wide fire management plan

- Require Firewise landscaping in all new subdivisions and assist homeowners grandfathered to develop defensible space landscaping around their structures based on “Red Zone” surveys
- Develop landscaping that will provide maximum protection with low maintenance requirements that can be used by those homeowners who recreate here.
- Improve water capacity in Geneva.

9.0 Possible Mitigation Measures

The potential for wildfires is likely to continue to increase because of the continuous fuel bed that is being allowed to develop within and adjacent to the subdivisions and scattered developed land parcels. Presently there is no effort by the County, State, or Federal land managers, or homeowners to reduce fuel loads; instead there has been active resistance by some homeowners to reduce fuel loads; instead there has been active resistance by some homeowners to change the “natural” vegetative conditions that exist on both Federal and private lands.

A variety of actions are needed to address the conditions in the assessment area. These have been split into two categories, general and specific, and are listed below.

9.1 General Actions

- Inform homeowners and Fire Department personnel about Firewise standards and practices.
- Encourage seasonal maintenance of vegetation around structures, propane tanks, and along access roads.
- Develop survivable space guidelines for homeowners based on vegetation and slopes.
- Control vegetation and maintain defensible space around structures; for most of the developing subdivisions, watering and mowing of the grass periodically during the growing season will provide a cheap and easy method to achieve this. Removal or reduction of the sagebrush will be easily accomplished by proper applications of herbicides or grubbing out of the individual plants, however the mountain shrubs reproduce by sprouts as well as by seed and mechanical removal of the crowns and roots would be needed to reduce or control the shrub cover. The mountain shrubs present provide browse for moose, deer, and elk, as well as cover for small mammals and birds. In areas where trees are present, a combination of pruning and removal will be required to develop Firewise spacing.
- Landowners and fire managers need to be aware of the vegetation types present on the landscape.
- Where desirable vegetation exists, it should be maintained through proper management practices.
- Activities which open an area to establishment of unwanted vegetation need to be mitigated. Most mitigation would involve re-establishment of desirable perennial grasses.
- Re-seeding attempts should be monitored and re-seeded until establishment of desirable vegetation has been achieved.
- Risk assessments by site should include an analysis of vegetation types.
- Project plans may want to include fire breaks (strip of fire resistant vegetation) to protect areas determined to be at high risk.

9.2 Specific Actions

- Undertake fuel modification efforts within the subdivisions on the individual lots, along access roads, and driveways for maximum effectiveness. Establishing and maintaining a cleared area the width of the road right-of-way along all common roads within the subdivision will provide safe ingress or egress for residents, visitors, and emergency personnel, as well as providing a fuel break. This will mean the removal of all encroaching shrubs and overhanging tree branches.
- Practice Firewise landscaping within each lot. A defensive zone can easily be established in many cases by removing the shrubs near structures and maintaining a green, mowed lawn during the growing season. If shrubs are to be retained as part of the landscape they should be isolated as individual plants or as small clumps.
- Remove all dead wood from both the mountain shrubs and trees that may be present to reduce their flammability. Dead woody material should be removed from the lot/subdivision to a disposal area. All conifer trees should be pruned up to 1/3 rd of their height (i.e. , remove ladder fuels 5-8 feet up from the ground). This should decrease the potential for surface fire to move into the tree crowns.
- Develop a cooperative program along subdivision boundaries where fuel is continuous with adjacent heavy fuel on Federal or State land the decrease the risk of fire moving between ownerships. In some cases a simple mowing/rotator-beating project may be all that is required. In conifer stands, however, a more costly shaded fuel break will be dictated. Periodic maintenance of this fuel break will be necessary to prolong its usefulness.
- Develop additional water sources as subdivisions build out to near capacity. The subdivisions and County should address this need to ensure enough water is stored for fire suppression. This may be as simple as developing a dry well system in some parts of the county with at least one large storage facility for the area.
- Obtain additional firefighting equipment to meet suppression needs. At least one 2-ton engine is presently needed at Fish Haven and a 3500 gallon tender will be needed to provide adequate water for suppression of wildfires in the interface areas.
- Obtain and house a quick response unit near the subdivisions on the east side of Bear Lake.
- Contract on a seasonal basis a tractor with mowing and disking capability for the grassland area north of State Highway 36 and US 89 to contain grass fires and protect housing being built.
- Develop public programs that will reach the seasonal residents of the county subdivisions and parcel developers in order for a lot-by-lot fuel reduction program to be most effective. Firewise trained summer seasonal personnel

could be very effective in making the contacts and in assisting in development of fuel modification plans for homeowners.

- Develop additional north/south roadways that connect the main subdivisions along the west side of Bear Lake.
- Upgrade Fish Haven Canyon Road to county standards.
- Provide dispatch with GIS software and map all roads and fire hydrants within the county.

Proposed Projects and Priority

The Proposed actions are based on the major change in use of the area that has resulted in an increasing number of residences being constructed in areas containing or adjacent to wildland fuels. The area has historically been grazed by both domestic stock and various species of wildlife, which has served to harvest a portion of the vegetation as forage or browse thus reducing the risk of fire. Since grazing of stock has been reduced the amount of grass and forbs remaining on the land has increased each year. The resultant vigorous grass stand has resulted in not only an increase in the volume of grass produced it has also resulted in a build up of the amount of litter remaining in the stands. The proposed actions will not only reduce the amount of dead fuel created by the grass stands, but will also remove the dead material being produced by the aging brush stands. By pruning and thinning the tree stands dead fuel in the canopies will be removed and the tree crowns will be more widely spaced thus decreasing the risk of wildfire moving from the surface fuels into aerial fuels and moving aerially from crown to crown.

There is a need by all agencies with jurisdiction in and adjacent to the assessment area to be actively involved in a public outreach program. Without the full understanding by the general public of the hazards and risks they are facing little of the needed fuel reduction will be under taken by residents within the subdivisions or be allowed to occur along adjacent agency boundaries. Resistance to any change from “natural” conditions will be very high among the vacation population without good communications between residents and agency personnel.

There are no known plans in effect that provide for implementation of the proposed actions. Resources currently in place are sufficient to control or suppress a small number of wildland and/or structural fires, but would likely be insufficient to control a large fire involving both structures and wildland fuels without Federal assistance.

It appears that there is a need to upgrade water systems within the subdivisions and further develop adjacent water sources to improve fire suppression capabilities dependent upon reliable water sources from a combination of wet and dry wells or constructed large cisterns.

An equally high priority should be given to obtaining an additional fire engine and water tender and installing foam units and water storage tanks with water sources as a lack of field water sources requires hauling water long distances to support fire suppression efforts.

The following proposed actions are listed by priority and should be addressed in the immediate future. These actions are based on needs of the volunteer fire chief and priorities outlined during meetings with the group:

1. Initiate fuels reduction in the interface region between the Bear Lake West subdivisions and the Forest Service Boundary. Other reduction areas include the Bear Lake Ranchettes area.
2. Purchase and construction of a two ton, 4x4 fire engine for Fish Haven; approximate cost under \$70,000 for finished engine.
3. Purchase and construction of 3500 gallon water tender for Ovid; approximate cost under \$50,000 for finished tender.
4. Purchase and installation of two foam units on existing attack engines; approximate cost under \$3000 for each engine.
5. Purchase material and construction of a 10,000 gallon water storage tank for wildfire suppression in Bear Lake Ranchette and Geneva area; approximate cost \$50,000.
6. Develop a county-wide fire plan that includes a standard set of enforceable fire codes.
7. Educate a county cadre that could do 'Red Zone' home surveys; develop a system recording data collected for use by both Fire Department personnel, dispatch and the office of the County Planner.
8. Develop an outreach program that will inform seasonal residents of subdivisions or parcels of the existing fuel hazards and risk of wildland fires.
9. Assist homeowners to develop a fuel reduction plan based on Firewise standards that will assist in protecting structures.
10. Develop a plan for maintaining clearing along county, subdivision and parcel access roads to insure safe ingress and egress of residents and fire fighting equipment.
11. Develop a schedule for rotator-beating and mowing rights of ways to reduce fuel along roads each spring/summer.
12. Develop a plan for construction of fuel break along federal and state boundaries that will provide for lower fuel loadings in the grass and shrub stands and shade fuel breaks in the areas in conifers, aspen, and cottonwood.

Mitigation of fire risk involves further action that need to be addressed in the future. The actions identified in this list and should be addressed in the next five years.

1. Provide GIS software to dispatch to enable use of "Red Zone" surveys
2. Incorporate fire code into local land use ordinances
3. Development of county-wide emergency evacuation plan
4. Improve fire fighting capacity at recreational subdivisions through awareness, education and equipment
5. Develop memorandums of understanding with Federal, State and Local Fire Agencies describing roles and involvement.

The above actions require the involvement of all homeowners as well as the County, State and Federal land managers. It is apparent that without the financial aid of the Federal government little of the proposed actions are likely to happen in the near future. Furthermore, actual placement of specific projects will depend on further study by local managers and completion of environmental documents. The most critical areas for fuels treatment activities are discussed below.

Discussion

10.0 Fuels Reduction and Firebreaks

- **Fuels Reduction and Fuel breaks:** Fuel modifications in the Bear Lake – West assessment area can be accomplished in a number of ways. Because of limited experience and limited finances at the County level, fuel breaks would be most effective if actions are undertaken in cooperation with State and Federal agencies. In addition, as much of the proposed fuel break would be on State or Federal lands the respective agencies will likely determine the method used for fuels reduction. The fuel breaks proposed along County roads and roads within the subdivisions, created by mowing grass and rotator-beating the shrubs, can be accomplished by contractors or County personnel and equipment provided Federal funds are assigned to the County. Pruning of some trees and larger shrubs may also be needed. On private land, the simplest and least expensive method of controlling fuels would involve removal of some mountain shrubs and mowing the grass on each lot.
- **Type of Fuels Treatment:** Types of fuel treatment will vary with location and landownership. Prescribed fire could be used within the areas of fuel modification on State or Federal land, but residents have opposed use of this method in the mountain shrub stands in the past. In the conifer tree stands a combination of pruning and thinning will be required to create a shaded fuel break at least 100 feet wide on the east aspects. On the breaks above the canyons at least 200 feet will be required to slow wildfires.
- **Locations of Firebreaks and Fuel Treatments:** Nearly all of the subdivisions could benefit from firebreaks and fuel treatments. Furthermore, nearly all of the subdivisions could benefit from increased access. Access is especially poor for the subdivisions to the south around Fish Haven. There are many narrow, one-way roads in this area that would limit egress and emergency service access.
- **Treatment Timing:** The mowing of grasslands or road rights-of-ways should be done in the spring or early summer prior to the curing of the grass when it would be most flammable (i.e., prior to grasses producing seed heads).
- **Treatment Necessity:** Without some level of treatment fuels will continue to increase increasing the hazard and the risk of large fire if an ignition occurs during drought conditions. While the construction of fuel breaks or reduction of existing fuel loads will not prevent wild land fires these modifications should make the fires easier to control.

10.1 Water Facilities

- **Construction of Water Storage Facility and Dry Wells:** If Federal seed monies are allocated, Bear Lake County will oversee their location and construction.
- **Type of Water Storage Facility:** A concrete facility will hold at least 10,000 gallons and include a related water delivery system. This facility will be located in or near the Bear Lake Ranchettes north of Ovid and Liberty and another in Geneva. Development of a water source will be the determining factor. Construction must be accomplished during the relatively short spring and summer season because of the normal early arrival of frost.
- **Location of Dry Wells:** Additional water sources are needed in the southern portion of the assessment area in the subdivisions surrounding Bear Lake.
- **Treatment Necessity:** Water is a serious issue in the assessment area, especially to the south around Bear Lake. Idaho Water Resources will not permit wells to be drilled on public land where most of the water probably exists. There is little water on private land in the area (most wells do not have flows significant enough to aid fire fighting equipment) where wells may be drilled. Consequently, a permit has been applied for so that all the landowners in the southern portion of the assessment area can drill one community well which can be used for fire fighting purposes. Pacificorp contests any application to Idaho Dept. of Water Resources to drill wells larger than single domestic use. Wells drilled for fire protection purposes should be exempt from this demand. Idaho is permitted to store up to 125,000 acre feet of water flowing down the Bear River. A way to store that much water needs to be developed. Storage tanks and reservoirs could be filled in the spring so that water sources aren't tapped into during the summer when the water is needed for agriculture.

10.2 Community Education and Outreach

- The purpose of the community education program is to 1) educate the public of the dangers of wildfire in the area, 2) urge residents to take responsibility in reducing the risk of wildfire and create defensible space around their residence, and 3) increase awareness of the natural role of low-intensity fire in woodland or grassland ecosystems and the necessity of prescribed burns or occasionally allowing woodlands or grasslands to burn.
- This public education and outreach should be supported with Federal funds, but should be spearheaded by the local Fire Districts with help from the BLM and Forest Service. The program must start in the spring to remind people to prepare their properties for the upcoming fire season and continue until fall as residents will vary during the summer as various members of trusts arrive. This is likely going to be a problem as most of the homes are only occupied during the weekends or family vacation time. The risk of wildfire will increase almost daily as the grasslands begin to cure and overstory plants reduce growth. Without an outreach program in which the seasonal residents as well as yearlong residents are contacted, little will change within the subdivisions.

11.0 Wildfire Mitigation Strategy and Implementation

The wildfire mitigation action items provide direction on specific activities that organizations and residents in Bear Lake County can undertake to reduce risk and prevent loss from wildfire events. Each action item is followed by ideas for implementation which can be used by local entities to pursue strategies for implementation. For the following action items, the recommended lead organization(s) is in bold font. Each of these items will be subject to funding availability.

Ideas for implementation:

-Initiate a fuels reduction such as controlled burning in high risk regions at the interface of the Forest Service Boundary and the Bear Lake West subdivisions

Coordinating Organizations:	Bear Lake County Fire District Bureau of Land Management Forest Service
Timeline:	Immediately
Plan Goals Addressed:	Protect life and Property, partnerships and implementation
Cost Estimate:	500 acres treated @ \$600/acre=\$300,000

11.1 Improve Bear Lake County fire fighting equipment, communications and training.

-Bear Lake County Fire Department to review and prioritize needs, assess abilities. Coordinate assessments with Rural Fire Protection Assistance Programs, Federal and State.

Coordinating Organizations:	Bear Lake County Fire District
Timeline:	2004/ Annually thereafter
Plan Goals Addressed:	Protect life and Property, Partnerships and Implementation, Emergency Services
Cost Estimate:	Four-wheel-drive fire engine under \$70,000 Three quick response units 3500 gallon water tender less than \$50,000 Installation of foam units 2@ \$3,000 for each engine Construction of 10,000 gallon water storage tank for Bear Lake Ranchettes area 1@ \$25,000. Acquisition of GIS software for dispatch \$3,000

11.2 Promote Firewise Education and Activities, coordinate activities county wide.

Ideas for implementation:

-Enlist community/development participation in firewise workshops and programs. Schedule educational events at schools, county fair and communities prior to and during fire season. Use County-wide coordinated cooperative effort with homeowners, County Fire Fighters, Federal and State agencies for adoption and participation in firewise community activities.

Cooperating Organizations:	Home Owners Associations USDA-Forest Service Idaho Department of Lands, Bureau of Land Management
Timeline:	Bear Lake County Fire Department Annually by July or August
Plan Goals Addressed:	Public Awareness, Partnerships and Implementation, Natural Systems
Cost Estimate:	In-Kind Donations of time, labor and materials

11.3 Implement Hazardous Fuels Reduction Programs in Identified Developments and Communities on County-Wide Scale.

Ideas for implementation:

- Communities and subdivisions that have hazardous fuels and are at high risk will be reviewed, totaled and grant submissions submitted on a county-wide basis. Prioritization, administration, direction and implementation will be accomplished by the County. Fuels treatments would include, but not limited to: creating defensible space, hazard tree removal, thinning, brush removal, tree limb removal, insect damaged tree removal, noxious weed removal and prescribed burning by Land Agencies.
- Identify County or Community areas for slash/brush disposal, chipping and burning.
- Communities, subdivisions and homeowner associations provide fuel treatment proposals for areas within developments, coordinate development of these proposals with adjacent landowners and land management agencies for possible cost savings. Access for equipment (chippers etc.) may need to be assessed and coordinated with multiple land owners.
- Utilize cost estimates from similar projects conducted in other counties or lands in Idaho.

Coordinating Organizations:

Bear Lake County
Local Communities
Homeowners' Associations
Idaho Department of Lands

Timeline:

5 years

Plan Goals Addressed:

Life, Property, Public Awareness,
Partnerships and Implementation, Natural
Systems

Cost Estimate:

County wide-\$240,000 equipment,
personnel and disposal or chipping-\$2,000
per day=120 project days with \$240,000,
combined or consecutive project will realize
a cost savings. Administration cost incurred
by County should be included in cost
estimates.

11.4 Establish Bear Lake County Wildfire/Natural Disaster Committee.

Ideas for implementation:

Convene new committee with the purpose of coordinating plan implementation, updates, accomplishments, public participation, information sharing and to promote prevention activities.

Coordinating Organizations:	Bear Lake County Emergency Committee Bear Lake County Commissioners Idaho Department of Lands USDA-Forest Service BLM Homeowners Associations Bear Lake County Fire Department
Timeline:	1 year
Plan Goals Addressed:	Public Awareness, Partnerships and Implementation, Natural Systems
Cost Estimate:	Development of county-wide emergency evacuation plan. Develop memorandums of understanding with fire agencies defining roles and involvement. No hard dollar costs.

11.5 Access

Enhance ingress/egress of existing subdivisions through expansion of existing road system. Improve Mountain Way to County Standards and direct future development between Bear Lake West and Loveland Lane to incorporate north/south roads connections in design.

Coordinating Organizations	Bear Lake County Commissioners Bear Lake County Road and Bridge Bear Lake Regional Commission
Timeline:	5 years
Plan Goals Addressed:	Public Safety, Partnerships and Implementation
Cost Estimate	\$500,000

12.0 Plan maintenance and review

Proposed plan maintenance will be bi-annual, with a comprehensive review proposed every five years.

Bi-annual review of the plan and mitigation recommendations will be necessary as various projects or task are accomplished and areas at-risk decline. Bi-annual review will also be needed as County infrastructure needs change or are met.

A bi-annual review with the wildfire group will allow State and Federal Land managers to initiate required planning procedures for identified mitigation projects and to update or modify mitigation recommendations.

A total review every five years (2009) is recommended as Bear lake County infrastructure needs change, specifically: population increases, fuels reduction projects are completed, emergency services communication needs are met or increase, and priority watersheds' risk from a wildfire is mitigated.

Appendix A

GIS MAPS

Location Map
Fire Occurrences
Priority Areas
Land Ownership
Bear Lake Slopes
Forest Service Treatments

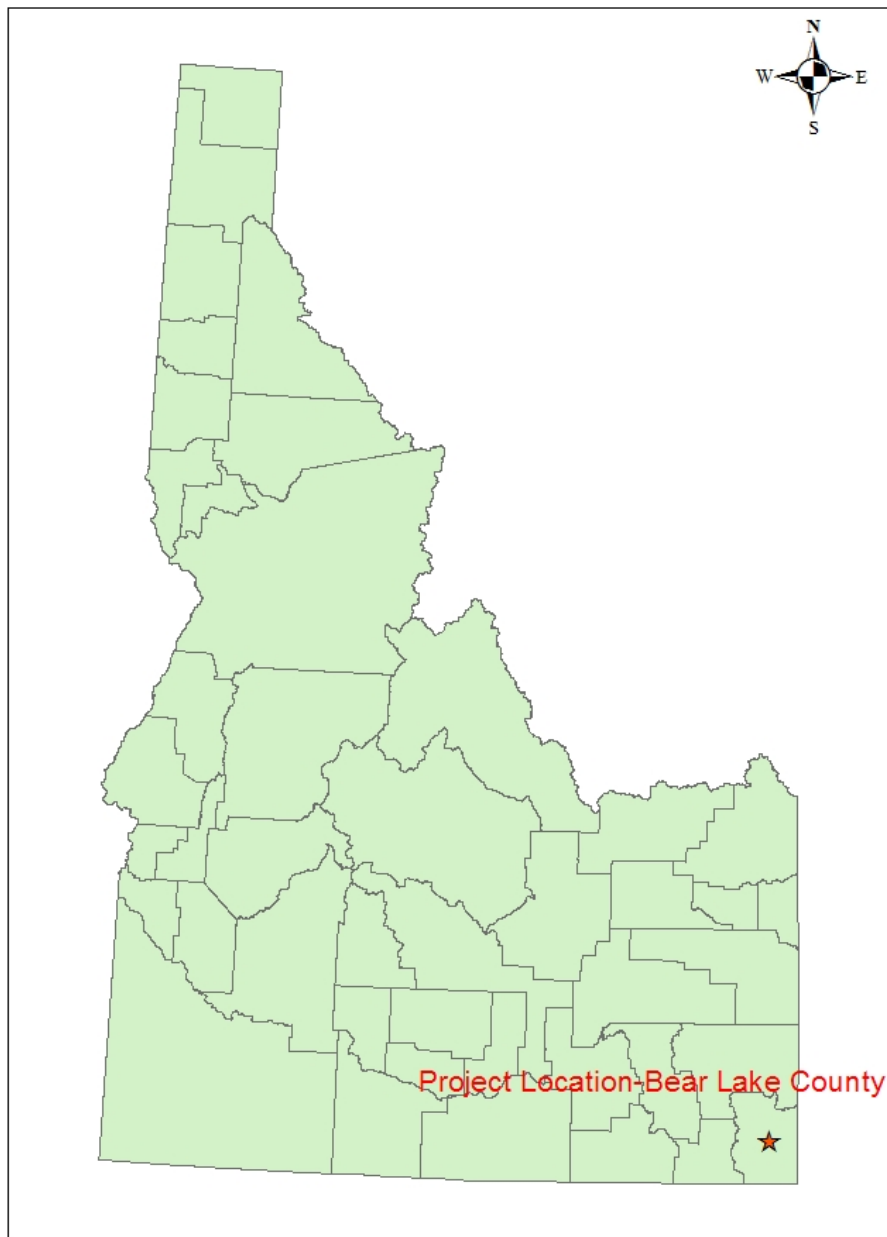


Figure 1. Location map of Bear Lake County

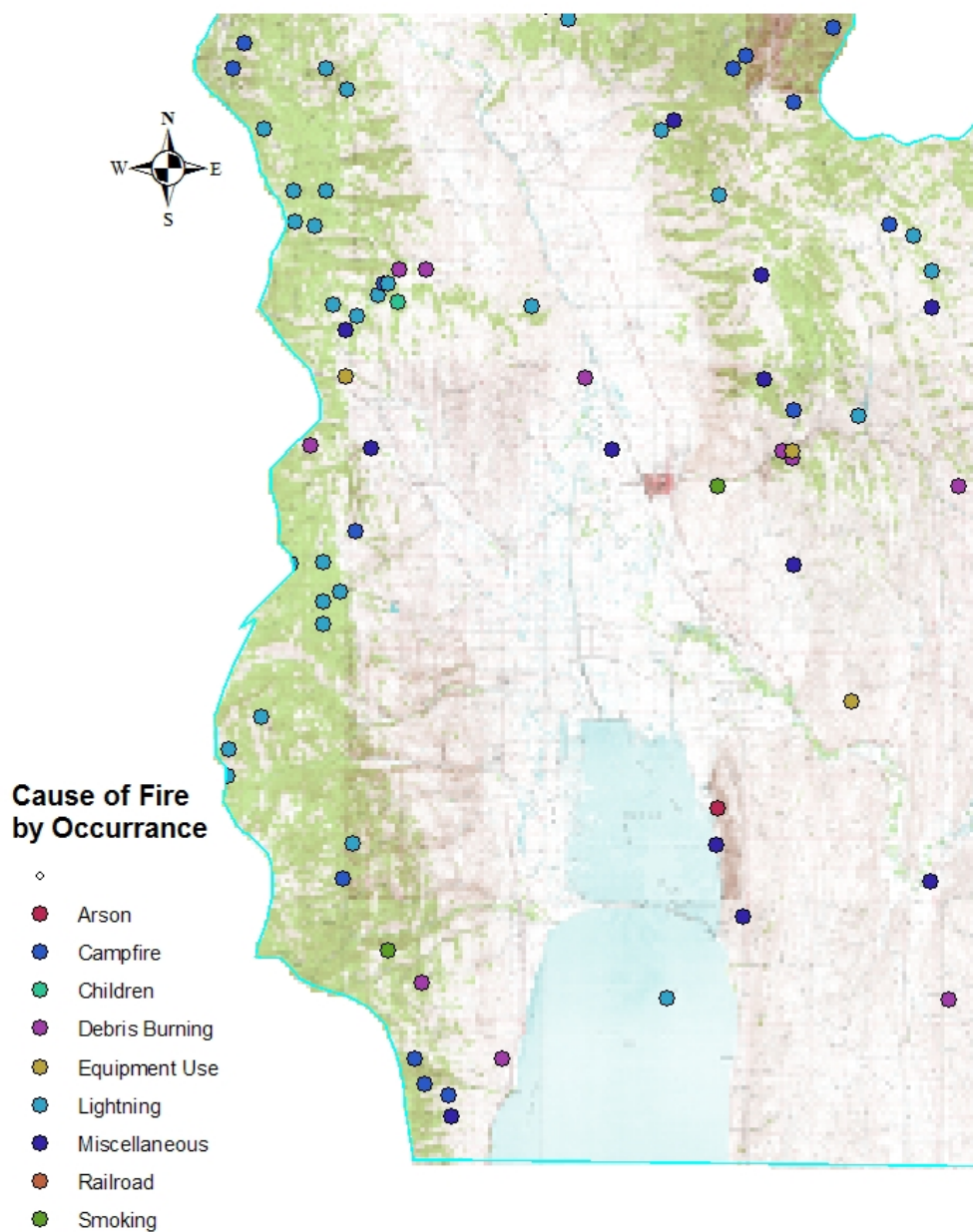


Figure 2. Fire Occurrences in Bear Lake County

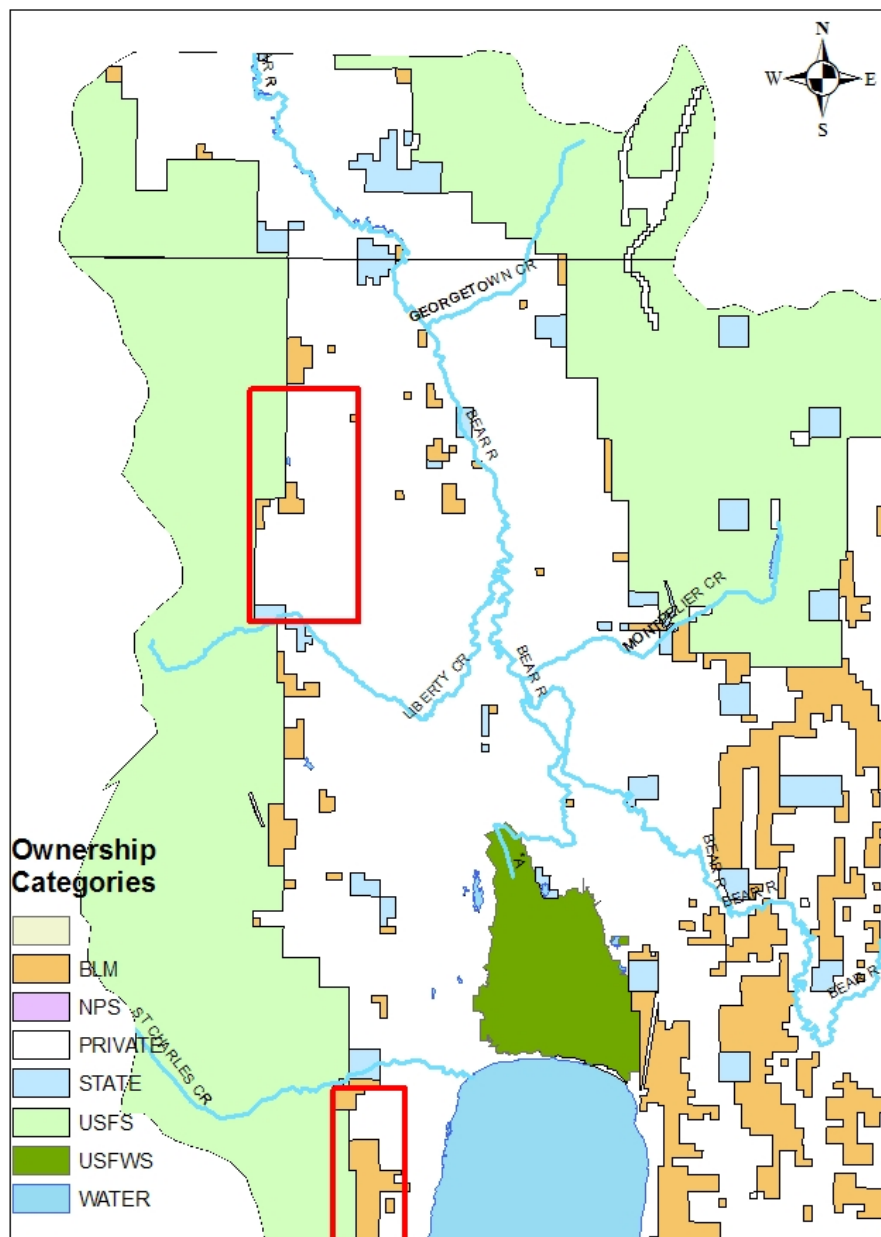


Figure 3. High risk areas within Bear Lake County

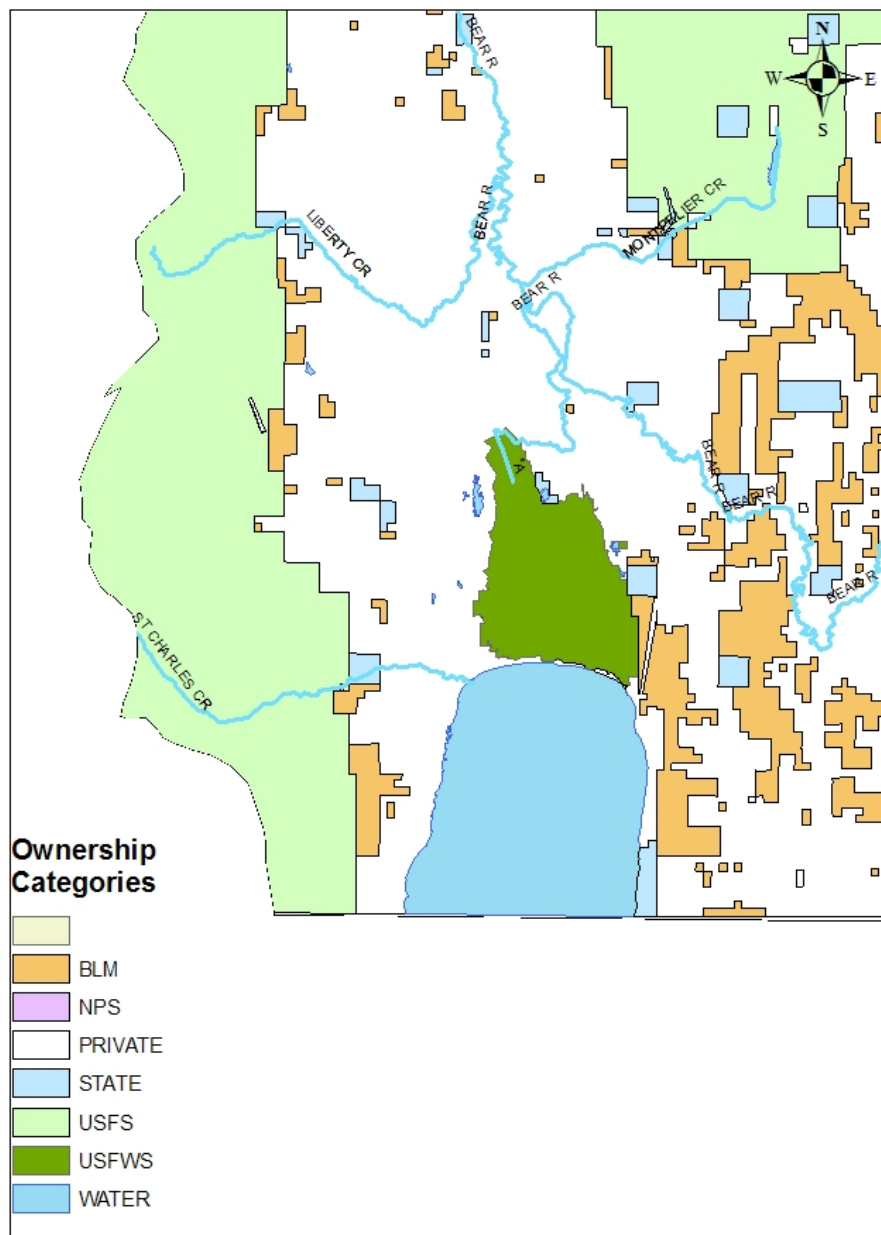


Figure 4. Land ownership within Bear Lake County

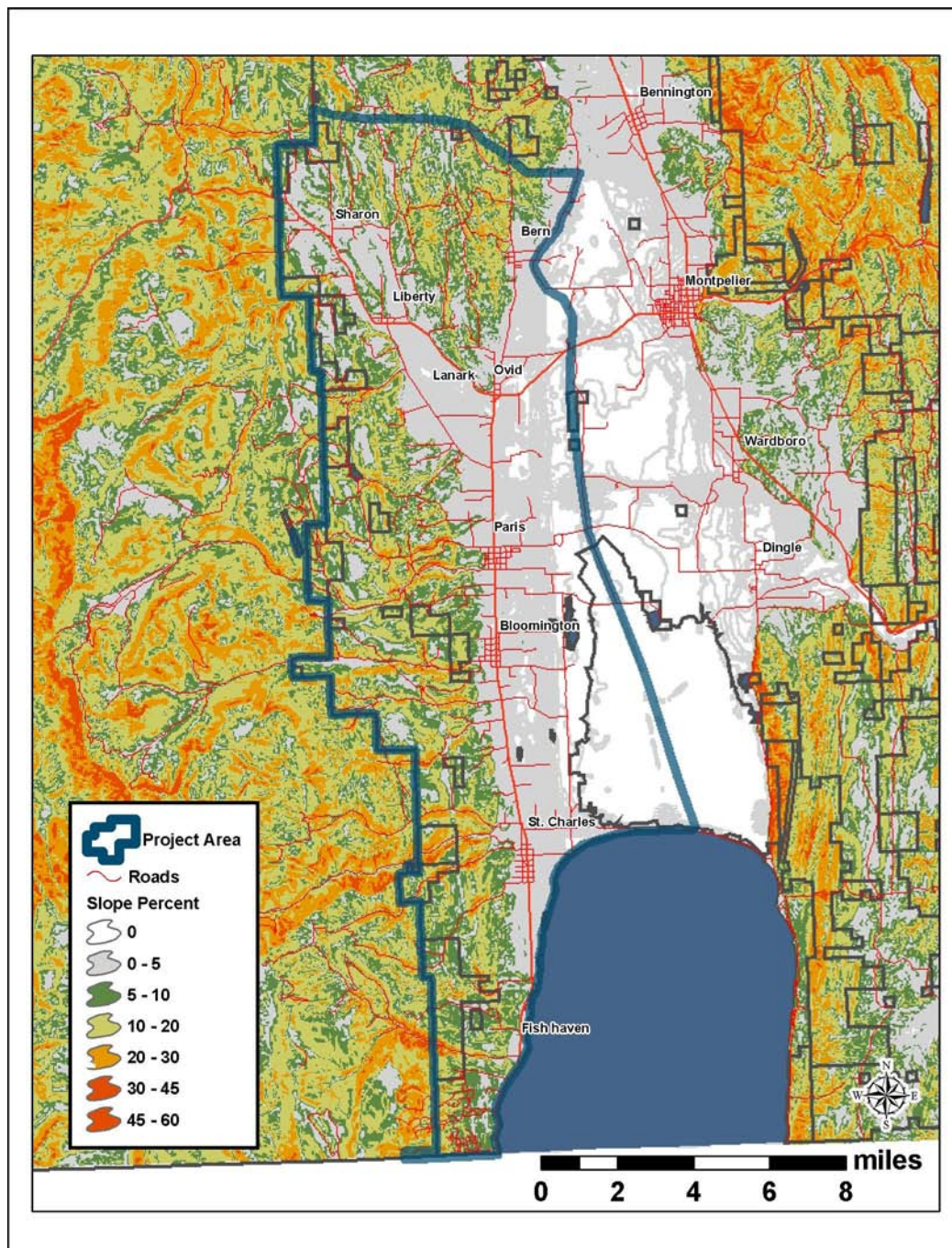


Figure 5. Slopes within Bear Lake County determined by percent

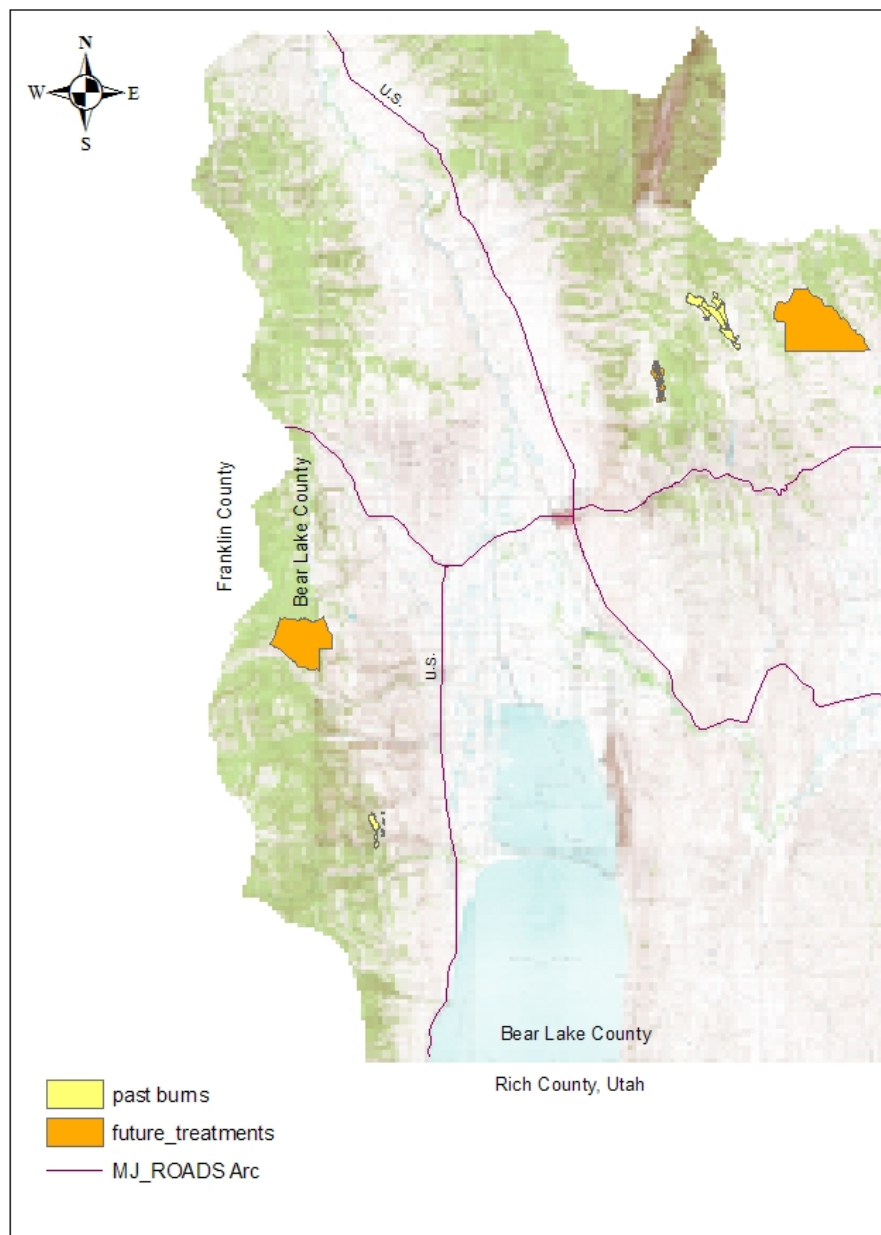


Figure 6. USDA Forest Service Fuels Treatments

Appendix B

Photo Documentation



Conifer and Aspen stands growing next to residential structures



Bailey Creek Subdivision with high density housing surrounded by open space



Multiple fire hazards shown here with wood sided buildings, brush growing up to siding and conifer forest abutting property



Stubble field surrounding the community of Bennington



Illustration of stubble fields that surround many of the small communities in Bear Lake County



Typical collection of otherwise unused buildings.



Illustration of the interface between agricultural land that is harvested and Federal lands where fuels have accumulated.



Typical cluster of farm buildings in Raymond

Appendix C

Assessment Forms

General Land Features (Form 1)

Location/Subdivision	Slope	Aspect	Fuel Type	Fuel Depth	Fuel Density	Elevation	Vegetation Type
Bear Lake West	B	B	B	B	B	A	Mtn. Brush & Grass
Bear Lake West Plat B	B	B	B	B	B	A	Mtn. Brush & Grass
Bear Lake West Plat C	B	B	B	B	B	A	Mtn. Brush & Grass
Bear Lake County Club	B	B	B	B	B	A	Mtn. Brush & Grass
Lake Hill	B	B	B	B	B	A	Brush/Grass
Loveland Lane	B	B	B	B	B	A	Brush/Grass
Deer Ridge*	B	C	A	B	B	A	Brush/Grass
Mill Creek Ranch	B	B	A	C	B	A	Brush/Grass/Conifer
Canyon Estates	B	B	A	B	B	A	Brush/Grass
Bear Lake Lodge	B	B	A	B	B	A	Brush/Grass
Bear Lake R.V. Park	B	B	A	A	A	A	Brush/Grass/Aspen
Blue Haven**	B	B	B	C	C	A	Conifer/Aspen/Grass
Fish Haven Condos**	A	B	C	B	C	A	Cottonwood/Conifer
Lakeside Estates**	A	B	B	B	B	A	Brush/Grass

Hairup**	A	B	B	C	C	A	Conifer/Cottonwood
Blue Bird Hill	B	C	B/C	C	B	A	Conifer/Shrub/Grass
Bloomington Canyon	C	A	B	B	B	A	Conifer/Shrub/Grass
Paradise Acres	B	B	B	B/C	B	A	Conifer/Shrub/Grass
Canyon Estates at Fish Haven	B	B	A/B	B	B	A	Shrub/Grass
Bear Lake Ranchettes	B/C	A/C	B/C	B/C	B/C	A	Shrub/Grass/Conifer
Bailey Creek	A	A	C	B	B/C	A	Conifer/Mtn. Brush/Grass
Geneva	A	A	A	A	A	A	Sagebrush/Pasture grass
Raymond**	A	A	A	A	A	A	Sagebrush/Pasture grass
Pegram	A	A	A	A	A	A	Sagebrush/Pasture grass
Wardboro	A	A	A	A	A	A	Cottonwood/Conifer/Grass
Dingle	A	A	B	A	A	A	Cottonwood/Conifer/Grass
Bear Lake Sands**	B	B	C	C	B	A	Conifers/Broadleaf/Brush
Emerald Beach**	B	B	B	B	A	A	Broadleaf/Sagebrush/Grass
East Shore Subdivision**	B	B	B	B	B	A	Sagebrush/Grass
Sandcastle Beach**	B	B	A	A	A	A	Grass
Sands 2**	B	B	A	A	A	A	Conifers/Russian Olive/Elm
Bennington	A	A	A	A	A	A	Grasses, Stubble fields

Lakeview*	A	B	A	B	B	A	Sagebrush/Grasses
Ramsgarden*	A	B	B	C	C	A	Cottonwood/Brush/Grass
Selmar*	A	B	B	C	C	A	Cottonwoods/Brush/Grass

A=Low
B=Medium
C=High

* No structures present
**Not close to federal lands

Structural Hazard Assessment (Form 2)

Location/Subdivision	Structure Density	Proximity to Fuels	Building Materials	Survivable Space	Roads	Response Time	Access
Bear Lake West	A	C	A	C	B	A	B
Bear Lake West Plat B	A	C	A	C	B	A	B
Bear Lake West Plat C	A	C	A	C	B	A	B
Bear Lake County Club	A	C	A	C	B	A	C
Lake Hill	A	C	A	C	B	A	C
Loveland Lane	A	C	A	C	B	A	C
Deer Ridge*	A	C	A	C	C	A	B
Mill Creek Ranch	B	C	N/A	N/A	B/C	A	C
Canyon Estates	A	C	A	C	C	A	C
Bear Lake Lodge	A	C	A	C	C	A	C
Bear Lake R.V. Park	A	C	A	C	C	A	C
Blue Haven**	C	C	A	C	C	A	C
Fish Haven Condos**	C	C	A	C	C	A	C
Lakeside Estates**	C	C	A	C	C	A	C
Hairup**	C	C	A	C	C	A	C
Blue Bird Hill	C	C	A	C	C	A	C
Bloomington Canyon	C	C	A	C	C	A	C

Paradise Acres	C	C	A	C	C	A	C
Canyon Estates at Fish Haven	C	C	A	C	C	A	C
Bear Lake Ranchettes	C	C	A	C	C	A	C
Bailey Creek	B	A/C	A	A/C	B	A	B
Geneva	A	A	A	A	A	A	A
Raymond	A	A	A	C	A	A	A
Pegram	A	C	A	A	A	A	A
Wardboro	A	B	A	A/C	A	A	A
Dingle	A	C	A	A/C	A	A	C
Bear Lake Sands	C	C	A	B	A	A	A
Emerald Beach	C	A	A	A	C	A	C
East Shore Subdivision	C	A	A	C	B	A	C
Sandcastle Beach	B	A	A/B	B	A	A	B
Sands 2	C	A	A	A	B	A	B
Bennington	C	A	A	A	A	A	A
Lakeview	C	A	A	A	B	A	A
Ramsgarden	C	A	B	C	B	A	A
Selmar	C	A	B	C	B	A	A

A=Low
B=Medium
C=High

Community Profile (Form 3)

Rating Element	Class A	Class B	Class	Rating (A,B,C)
Community Description	There is a clear line where residential business, and public structures meet wildland fuels. Wildand fuels do not generally continue into the developed area.	There is no clear line of demarcation of wildland fuels. Fuels are continuous outside of and within the developed area.	The community generally exists where homes, ranches, and other structures are scattered by adjacent to wildland vegetation.	A/B
Response Time	Prompt response time to interface areas (20 min or less)	Moderate response time (20-40 minutes).	Lengthy response time to interface area (40+ minutes)	B
Firefighting Capability	Adequate structural fire department. Sufficient personnel, equipment, and wildland firefighting capability and experience.	Inadequate fire department. Limited personnel, and or equipment but with some wildland firefighting experience and training	Fire department non-existent or untrained and/or equipped to fight wildland fire.	B (Limited number of personnel)
Water Supply	Adequate supply of fire hydrants and pressure and/or open water sources (pools, lakes, reservoirs, rivers, etc.).	Inadequate supply of fire hydrants, or limited pressure. Limited water supply.	No pressure water system available near interface. No surface water available.	A(Some have no hydrants) (Fire Department adapted to agricultural setting)
Local Emergency Operations Group	Active EOG. Evacuation plan in	Limited participation in EOG. Have some	No EOG. No evacuation plan in	B

	place	form of evacuation process.	place.	
Structure Density	At least one structure per 0-5 acres	One structure per 5-10 acres	Less than one structure per 10 acres	A
Community Planning Practices	County/local laws and zoning ordinances require use of fire safe residential design and adequate ingress/egress of fire suppression resources. Fire Department actively participates in planning process	Local officials have an understanding of appropriate community planning practices for wildfire loss mitigation. Fire department has limited input to fire safe development and planning efforts	Community standards for fire safe development and protection are marginal or non-existent. Little or no effort has been made in assessing and applying measures to reduce wildfire impact.	B
Fire Mitigation Ordinances, Laws, or Regulations in Place	Have adopted local ordinances/codes requiring fire safe landscaping, building and planning. Fire Department actively participates in planning process	Have voluntary ordinances or codes requiring fire safe landscaping and building practices. Fire Department participates in planning process	No local codes, laws or ordinances requiring fire safe building landscaping or planning processes.	A/B
Fire Department Equipment	Good supply of structure and wildland fire apparatus and miscellaneous specialty equipment	Smaller supply of fire apparatus in fairly good repair with some specialty equipment.	Minimum amount of fire apparatus, which is old and in need of repair. None or little specialty equipment.	B (Limited equipment and capacity of tenders)
Fire Department Training and	Large, fully paid fire department with	Mixed fire department. Some paid and some	Small, all volunteer fire department.	C (Fire personnel meet both standards

Experience	personnel that meet NFPA or NWCG training requirements, are experience in wildland fire and have adequate equipment.	volunteer personnel. Limited experience, training and equipment to fight wildland fire.	Limited training, experience and budget with regular turnover of personnel. Do not meet NFPA or NWCG standards	now)
Community Fire Safe Efforts and Programs Already in Place	Organized and active groups (Fire Dept.) providing educational materials and programs for their community.	Limited interest and participation in educational programs. Fire Department does some prevention and public education.	No interest of participation in educational programs. No prevention/education efforts by fire department	B
Community Support and Attitudes	Actively supports urban interface plans and actions	Some participation in urban interface plans and actions.	Opposes urban interface plans and efforts.	B (Limited)

Appendix D

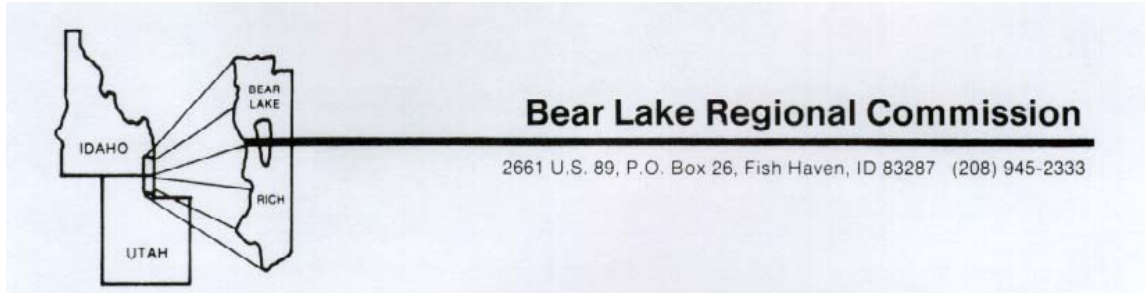
Public Involvement



The Bear Lake Regional Commission has recently completed a draft of the Bear Lake County Fire Plan. The purpose of the plan is to inventory the wildland fire danger for the county and develop mitigation to reduce the risks associated with high risk areas. To fulfill the goals and objectives of the plan, all areas within the county excluding incorporated communities were inventoried for fire hazards. The inventory includes: a structural assessment, an environmental assessment and a community assessment. Mitigation strategies based on the inventory have been developed with help from the Wildland Fire Group and a proposed list of actions and implementation strategy are included.

This plan was developed with assistance from the Bureau of Land Management and Bear Lake County Wildland Fire Group which is composed of Federal, State and Local Fire Personnel and other local leaders. The public is invited and encouraged to read the plan and provide any comments or suggestions that may be of benefit to the county in preventing and controlling wildfires. The comment period will be open until the end of September and copies of the Fire Plan can be found at the following locations:

- Bear Lake County Courthouse
- Montpelier City Office
- Bear Lake County Library
- Paris City Library
- Bear Lake Regional Commission



The Bear Lake Regional Commission has recently completed a draft Fire Assessment and Mitigation Plan for Bear Lake County. This fire assessment is part of the “communities-risk” program sponsored by the Bureau of Land Management. An initial “high-risk” fire assessment was completed in 2003 by Northwind Inc. for the west side of the county. Information from that plan has been incorporated into this plan for a comprehensive assessment of fire hazards county wide.

Elements assessed during plan development include: Structural fire hazards, natural fire hazards and community profile. Structural hazards that were assessed included: Construction materials, roof composition, building lot density and other factors related to home construction and surroundings relative to fire hazards. Natural hazards assessed included: vegetation type, density, slope, aspect. Assessment of the community profile included information regarding the capacity of the volunteer fire department and local emergency operations group as well as community attitudes and perceptions about wildland fires. Further assessments have been provided for lands administered by the USDA Forest Service.

Through information provided by the assessments of the county, public input and recommendations from the wildland fire group, a mitigation strategy has been developed for the county. Improvements suggested as mitigation include: improved infrastructure, upgrading of existing equipment and acquisition of additional equipment, an information, education and outreach program targeting recreational homeowners and full time residents.

Much of the mitigation for the county is focused on the western side of the county between Bear Lake and the Forest Service Boundary. This side received the greatest amount of consideration because of the fire danger posed by existing conditions. Lack of water, accessibility, population, fuels and infrastructure all contributed to the focus on the west side of the county. A copy of the plan will be available to the public at the following locations: Bear Lake Regional Commission, Bear Lake County Courthouse, Montpelier City Hall, Montpelier Library, Paris Library. Comments on the proposed plan are welcome and encouraged and a comment form will be provided at each location.

News Column 08/04/04

Fire assessment and mitigation draft plan recently announced

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Improvements suggested as

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